

Mapping the Landscape of Risk Management in Islamic Banking: A Bibliometric Exploration

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Abstract – Islamic banking, a field that significantly diverges from conventional financial systems, is gaining prominence globally. Understanding the risk of management strategies is a matter of interest and a critical need in the academic community. This study, a meticulously conducted comprehensive bibliometric analysis, is a testament to the commitment to exploring the scope and depth of existing research on risk management within Islamic banking regularly. Utilizing data from the Scopus database from 1991 to 2023, the analysis covers 716 documents from 315 sources. The objective is to delineate the intellectual contours of risk management in Islamic banking, identifying predominant themes, leading authors, and critical institutional contributors. The results show a vigorous annual increase in publications, high citation rates per document, and significant international collaborations, underscoring Islamic banking research's dynamic and impactful nature in fostering a resilient and ethically oriented global financial framework.

Keywords – Risk management strategies, Islamic banking risk, cross-cultural financial studies, global Islamic finance trends, asset-backed transactions.

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1. Introduction

Islamic finance, a pivotal innovation in financial intermediation, is not just a local phenomenon but a global force. Its risk-sharing principles and asset-based transactions contrast conventional finance systems primarily driven by interest [1]. This field adheres to Islamic legal principles, known as Sharia, which prohibits usury. It promotes financial inclusion and economic justice, principles resonating globally as part of a broader shift towards ethical finance [2]. With its comprehensive bibliometric analysis, this research aims to delineate the intellectual contours of risk management in Islamic banking, identifying predominant themes, leading authors, and critical institutional contributors. The results underscore the dynamic and impactful nature of Islamic banking research in fostering a resilient and ethically oriented global financial framework, inspiring optimism for the future of finance [3].

The rapid expansion of Islamic finance on the global stage has turned it into a subject of considerable interest among scholars, policymakers, and financial practitioners alike. This growth is not just in traditionally Muslim countries but extends to western and non-Muslim regions, indicating its increasing acceptance and integration into the mainstream financial systems. Consequently, there has been a growing interest in rigorous academic studies, mainly quantitative research, to delve into its intellectual evolution, analyze its impact on global economics, and evaluate its contribution to sustainable and ethical financial practices [4], [5], [6].

Such scholarly attention aims to uncover the dynamics of Islamic finance, shedding light on how it influences global financial stability, supports economic development, and fosters innovation in financial products and services. By emphasizing actual economic activity and asset backing in financial transactions, Islamic finance offers a stable and resilient financing model, which has attracted attention amidst global financial uncertainties [7].

As Islamic finance grows, its role in critical global discussions around finance and development becomes increasingly significant [8]. The field is seen as a transformative force in finance, with potential implications for addressing global challenges such as poverty, inequality, and sustainability. The evolving discourse around Islamic finance contributes to a deeper understanding of its mechanisms and principles. It sparks a reevaluation of existing financial models, highlighting the need for systems prioritizing social welfare and economic justice alongside profitability [9].

In this context, expanding academic research in Islamic finance is crucial. It provides empirical evidence and theoretical analysis that aid in refining practices, shaping policies, and guiding the sustainable growth of Islamic financial institutions globally. As such, academic insights into Islamic finance are more than scholarly pursuits; they are essential contributions to the global dialogue on creating a more inclusive and equitable financial system [10].

The ongoing challenges in the global economy, especially severe financial crises, have led to significant banking failures and increased risk exposures, impacting Islamic banks and their conventional counterparts [11]. Previous research indicates that Islamic banks may exhibit greater resilience to financial crises than traditional banks due to differences in profitability determinants and risk behaviors [12]. Specifically, variables like bank capitalization and credit risk are of greater importance in liquidity solutions. However, Islamic banks face unique risks, such as Sharia compliance and operational risks that conventional banks do not face to the same extent. These unique risks underline the urgency and necessity for effective risk management strategies tailored to the unique framework of Islamic finance, making it clear that the time for action is now [13].

The governance of Islamic banks also plays a crucial role in managing risks and enhancing bank efficiency. The governance framework in Islamic banks, influenced by Sharia boards and various risk management practices, must demonstrate to the public and stakeholders that these banks adhere to religiously informed regulations and best practices [1].

This journal article conducts a bibliometric analysis of existing research on risk in Islamic banking [14]. By examining the geographical distribution of the literature, the primary sources of publication, and the most influential authors and works in the field, this analysis aims to map out the intellectual landscape of Islamic banking risk. Understanding the main themes, methodologies, and contributions from the most cited sources is crucial [15].

The significance of conducting a bibliometric research on Islamic banking risk management lies in its ability to provide a structured overview of the academic landscape, which can guide future studies and inform practice. This approach helps identify the key contributions and trends in the field. It supports the development of a comprehensive knowledge base that can influence policy and operational strategies in Islamic finance. By focusing on the risks associated with Islamic banking, this research seeks to assist future researchers in navigating the extensive body of literature and identifying seminal works that have shaped the field.

2. Methodology Section

This study used the bibliometric method [16]. Research information was obtained using the default search system provided by the Scopus between 1991 and 2023. A comprehensive bibliometric summary and analysis of developments in Islamic banking risk management research has been prepared objectively. The aim was to summarize existing research developments. First, the researcher chose 716 journals for further research. The publications selected were subjected to several analyses, including for the most prolific countries, journals, authors, institutions, and articles. Discussing Islamic banking risk management has become a common topic among economics researchers. Previous researchers used many methods to obtain data to assist research in the field. The research results would increase yearly with so many researchers exploring this field [14], [16], [17].

Researchers utilized the Scopus journal publication platform as a data source. The authors used the bibliometric method with the Scopus-published database as the primary data in this analysis. The Scopus database is used for this research because it has more high-quality journals in a structured form Scopus-compatible with Bibliometrix software [18], [19]. Researchers can use systematic literature reviews to build a solid conceptual foundation in the future.

In conducting a bibliometric analysis, the first step involves selecting relevant keywords. The subsequent phase assesses the volume of published works using a Boolean search with the terms TITLE-ABS-KEY (Islamic AND banking AND risk) in Scopus, initially yielding 726 documents. These results are further refined to English language articles only, resulting in 716 papers. Researchers require at least 500 publications to employ bibliometric methods effectively. In the final phase, tools from Scopus and R are utilized to analyze these documents yearly based on journal, author, affiliation, subject, and country. Techniques such as co-occurrence mapping identify dominant author networks and track research trends in Islamic banking risk [20], [21]. Figure 1 shows the flow of research procedures.

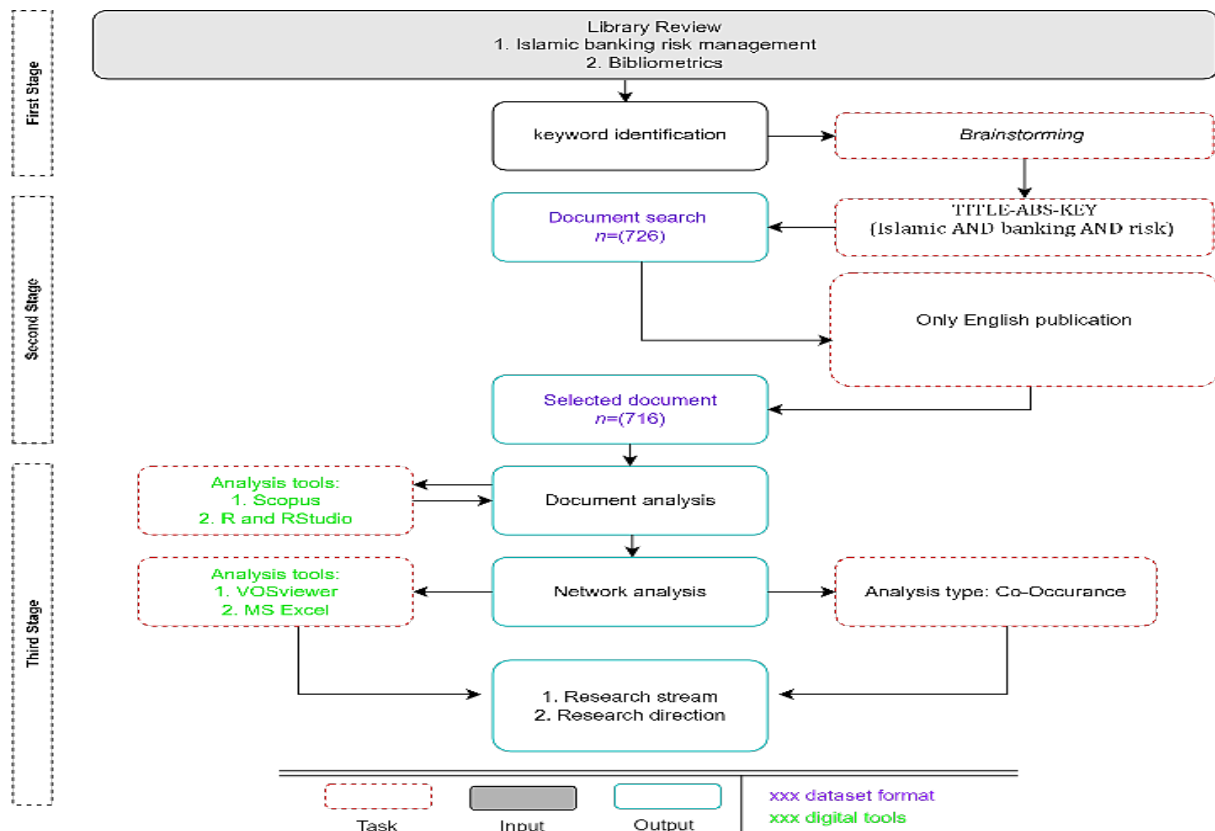


Figure 1. The flow of research procedures

3. Results and Discussion

The following section will explore results obtained from the extensive data analysis conducted over the research period. Various documents were collected and assessed to better understand the dynamics and trends within this field. This subsection will provide a detailed overview of the data analyzed, revealing significant growth in publications and striking trends in collaboration and reflecting the relevance and quality of the research produced during this period. This will be a starting point for discussing further findings and their impact on the related field.

3.1. Document Analysis

Table 1 shows the primary information about the analyzed data. Data analysis from 1991 to 2023 shows a significant growth in academic publications in specific fields, with 716 documents collected reflecting diverse sources (315 sources, including journals and books). The 10.44% annual increase in publications signals consistent and exciting growth in this field, reflecting increasing interest and expanding knowledge.

An important factor supporting the activeness of this field is the average age of documents, which is only 5.82 years. This indicates that most research remains relevant to the latest trends and developments. The high average citations per document, 11.58, confirms the research's quality and broad influence in the scientific community.

Furthermore, the data shows a strong trend towards collaboration in local and international contexts. With an average of 2.6 authors per document and 26.96% of documents having international cooperation, it is clear that collaboration between researchers from various countries plays a crucial role in enriching and expanding scientific insight.

A unique fact is the high number of keywords used by the author (1,492) compared to the Plus keywords identified by indexation (467). These differences may indicate that the authors attempted to cover a wider range of more specific topics and subfields, which are not necessarily fully reflected in standard indexation systems. This indicates the thematic richness and diversity covered in this research while indicating that there is room for further development in the indexation categories to cover the broad spectrum of topics explored by the researchers.

Table 1. Main information about the data

Description	Results
Timespan	1991:2023
Sources (Journals, Books, etc.)	315
Documents	716
Annual Growth Rate %	10.44
Document Average Age	5.82
Average citations per doc	11.58
References	32088
Keywords Plus (ID)	467
Author's Keywords (DE)	1492
Authors	1417
Authors of single-authored docs	124
Single-authored docs	146
Co-Authors per Doc	2.6
International co-authorships %	26.96
Article	583
Book	23
book chapters	46
conference papers	38
conference review	3
Erratum	3
Reviews	19

Figure 2 shows publication trends from 1991 to 2023, showing several striking phases in related research activity. Initially, publication activity appeared stagnant, with very few publications until 2005. This indicates a lack of interest or resources at that time. However, starting in 2005, there was a significant surge in the number of publications, indicating an increased focus and perhaps also increased funding or policy changes supporting research in the area. The peak of activity occurred towards 2020, when the graph reached almost 90 publications in a year, reflecting the most productive period in research.

After reaching the peak, the graph shows a sharp decline, especially after 2020, which may be influenced by factors such as the COVID-19 pandemic, regarding the fact it disrupted many aspects of academic and research activities. This decline could also result from saturation in previously popular research topics. Additionally, fluctuations in the post-2015 graph indicate volatility in research funding or changes in research priorities that global dynamics or new scientific findings may cause. This analysis provides important insights into how external and internal factors influence publication activity in this field of study, offering a valuable basis for future research and funding strategies to ensure sustainability and innovation.

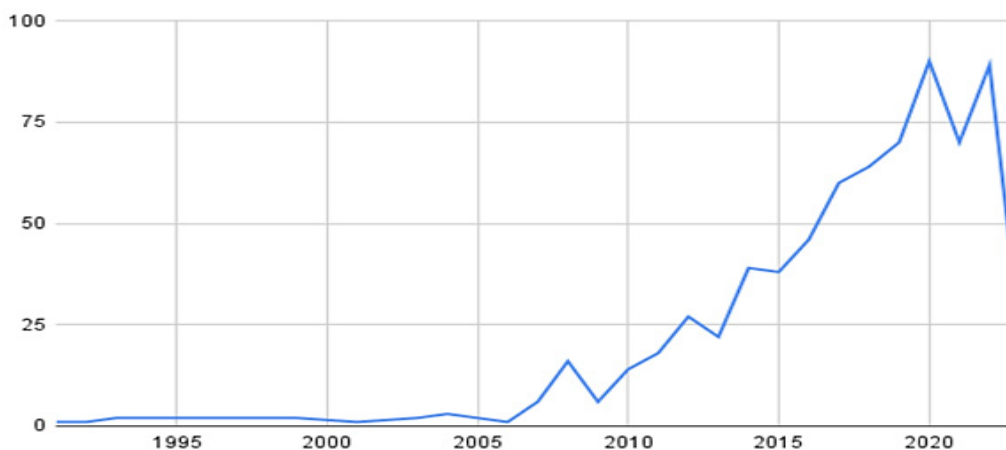


Figure 2. Publication trends by year

According to Figure 3, Malaysia tops the list of publications, with 234, followed by the United Kingdom in second place with 85 publications. Indonesia ranks third with 83 publications. The discussion on related themes does not only focus on one continent but several continents, including America, Asia, and Europe. Malaysia is listed as the country with the most considerable Sharia financial assets in Southeast Asia and the world. The State of Malaysia is determined to open a way out of the monetary crisis that often plagues Asian countries.

One of the methods used is the application of the Islamic banking system. They know that both Sharia-based and conventional banking will still experience risks.

Moreover, Islamic banks have some risks that traditional banks do not, so discussions about banking risk management are an interesting topic in this country. America's attribute being a developed country that experiences stable GDP growth does not necessarily prevent America from experiencing an economic crisis.

In 2008, America experienced an economic crisis triggered by bad loans in the US property sector. Therefore, the discussion on banking risk management is naturally interesting in this country because the risks faced by banks are related to financial conditions that affect the country's crisis.

The economic crisis in America has spread to various countries, including Indonesia.

Ownership of the dollar and the influence of the Federal Reserve have also become the focus of global banking. In the same year, Europe also experienced an economic crisis.

This time, the cause was an excessive state debt burden, so the state needed help in maintaining its financial stability.

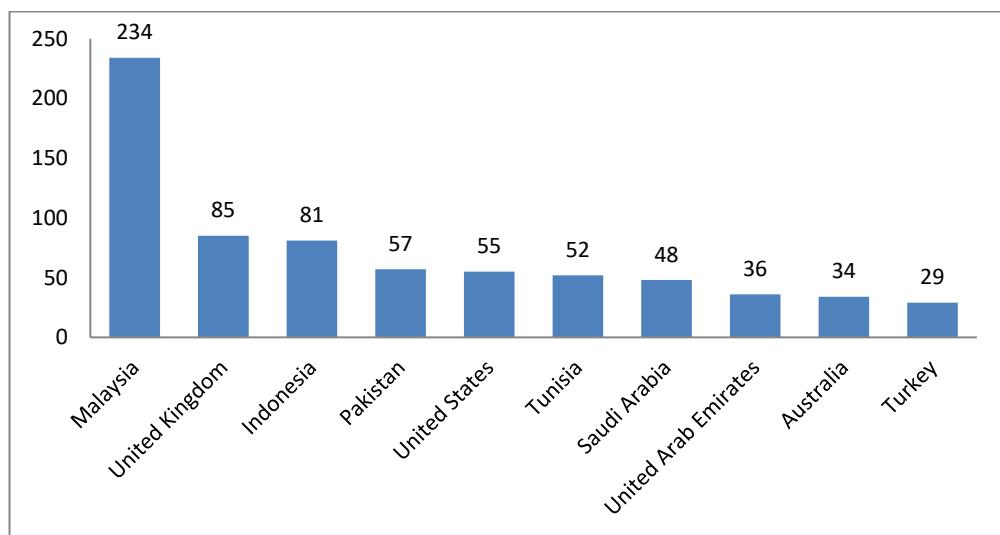


Figure 3. Publication frequency by country

Figure 4 shows the number of publications by various educational institutions. This analysis yields several interesting findings.

International Islamic University Malaysia (IIUM) has the highest number of publications - 47, indicating its position as an important center for Islamic research and education. It is followed by the International Center for Education in Islamic Finance (INCEIF), which has 42 publications, underscoring the important role of this institution in developing Islamic finance globally.

Universiti Kebangsaan Malaysia, with 33 publications, and Universiti Sains Islam Malaysia (USIM), with 25 publications, demonstrate significant contributions to advancing Islamic studies. This indicates the quality and activeness of research at these universities in globalizing Islamic education.

Furthermore, Universiti Teknologi MARA, with 24 publications, and the University of New Orleans, with 23 publications, also made significant contributions.

However, their numbers are less than the prominent leaders in this graph. Interestingly, although the University of New Orleans is not an institution primarily focused on Islamic studies, its presence in this graph indicates the diversity and acceptance of Islamic studies in the broader academic environment.

On the other hand, Université de Tunis, Universiti Utara Malaysia, and Université de Manouba each have lower publications, ranging from 18 to 13. Their presence indicates a wide geographic spread of Islamic studies from Southeast Asia to North Africa.

In conclusion, this data highlights the institutions most active in publications in Islamic studies. Most institutions are located in Malaysia, which indicates that the country is an important center for Islamic education and research. The presence of institutions from various parts of the world also emphasizes the importance of Islamic studies as a dynamic and global academic field.

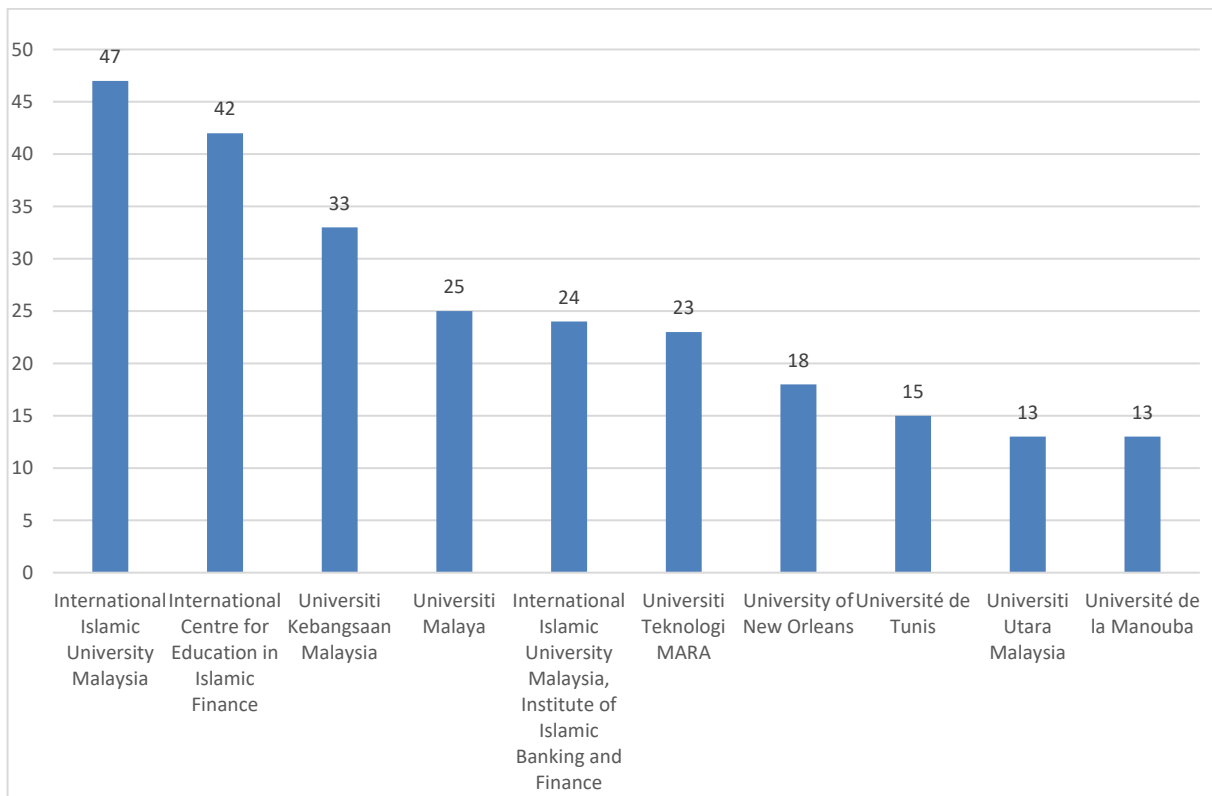


Figure 4. Publication by affiliation

Figure 5 displays the number of publications by various authors. From these data, the distribution of research productivity among a selected group of authors can be seen. Hassan MK stands out as the most prolific writer, with 11 publications, followed by Abdul Rahman A., with nine publications. Other authors, such as Boulebene Y., Mateev M., and Suzuki Y., each with eight publications, show a high level of productivity but slightly lower than the top two authors.

Furthermore, authors such as Alam M., Austav M., Azmat S., Kabir Hassan M., and Kassim S., have seven publications each. Consistency in the number of publications among these groups suggests a stable contribution level within their research communities.

An interesting fact from this graph is that although there is variation in the number of publications between authors, none of them has a very low or very high number, which indicates that all the authors shown are pretty active in producing research work. This relatively even distribution may indicate a collaboration or widespread expertise among these authors in the same field of study. In conclusion, this graph depicts a picture of competitive productivity among authors in specific academic fields, with Hassan MK and Abdul Rahman A., as central figures in generating research output.

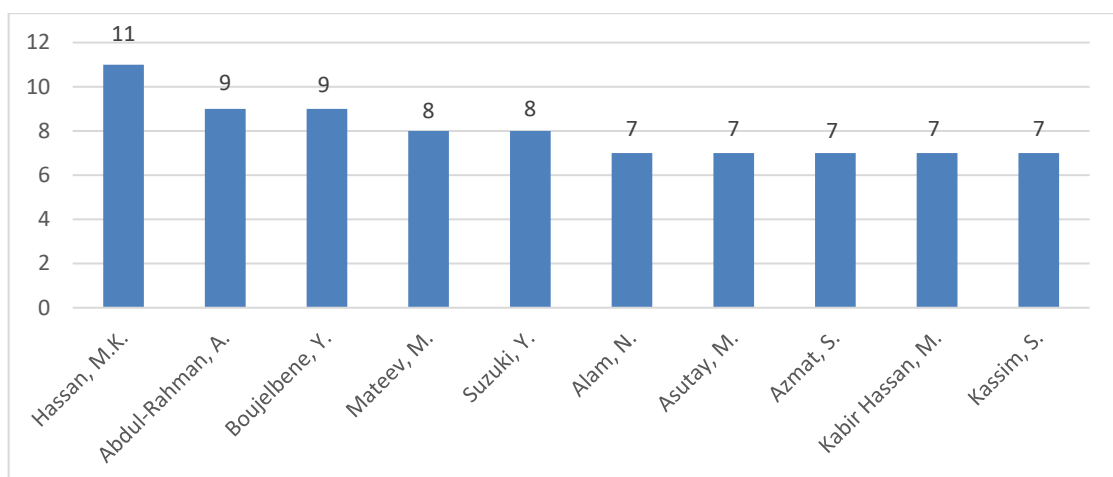


Figure 5. Publication by author

Table 2 highlights the total number of citations per year and normalized citations for ten papers. This analysis can yield several exciting findings.

Čihák M. of the Financial Services Research Journal leads the way with citations 439, demonstrating robust and ongoing influence in the field. However, Abedifar P. of the Review of Financial has a higher annual citation rate, namely 33.82, which indicates that this paper received very rapid recognition and significant importance after publication, with a normalized citation value reaching

14.48, the highest value in the world, among all analyzed working papers.

On the other hand, although Olson D. from the International Journal of Accounting has been published for a long time, it still shows a stable influence with 180 total citations and 11.25 citations per year. Rosman R. from the Pacific Basin Financial Journal showed excellent performance with a normalized citation value of 10.50, indicating high quality and continued relevance to the year of publication.

Table 2. Citation analysis

Paper	Total Citations	TC per Year	Normalized TC
Čihák M, 2010, J Financ Serv Res	439	31.36	7.72
Abedifar P, 2013, Rev Financ	372	33.82	14.48
Olson D, 2008, Int J Account	180	11.25	4.54
Rosman R, 2014, Pac Basin Finance J	126	12.60	10.50
Kabir Mn, 2015, Pac Basin Finance J	109	12.11	5.87
Ahmed A, 2010, Int J Islam Middle East Finance Manage	102	7.29	1.79
Abedifar P, 2015, J Econ Surv	97	10.78	5.22
Gait A, 2008, Int J Soc Econ	96	6.00	2.42
Khediri Kb, 2015, Res Int Bus Financ	94	10.44	5.06
Safiullah M, 2018, Pac Basin Finance J	89	14.83	7.41

Furthermore, several papers show good acceptance and steady growth in citations, such as the work of Kabir Mn. and Abedifar P., who have normalized citation values of 5.87 and 5.22, respectively. However, Ahmed A. of the International Journal of Islamic and Middle East Finance Management had the lowest normalized citation value, 1.79, indicating a lack of relevance or competitiveness against other papers in the data set.

In conclusion, these data demonstrate significant variation in how research is received and continues to influence the field. Some papers achieve rapid and intensive recognition, while others show a more moderate or long-lasting influence. This highlights the importance of research topics and timeliness in influencing how the academic community receives papers.

3.2. Network Analysis

In this research the co-occurrence analysis to enable the identification and visualization of relationships between keywords that frequently appear together is chosen, revealing dominant structures and themes in a research field.

This method is effective for simplifying big data, identifying trends and emerging research areas, and supporting an efficient literature review process. Thus, co-occurrence analysis helps in formulating research questions, devising research strategies, and exploring the dynamics of scientific evolution, making it a valuable tool in bibliometric research [22].

This analysis was carried out using VOSviewer software. To get a more comprehensive picture of the vocabulary used in the publication, 'co-occurrence' as the analysis type and 'All keywords' as the unit of analysis is chosen. The calculation method used is 'Full counting', which takes into account each keyword occurrence in full in the analysis, thereby giving equal weight to each occurrence.

To determine which keywords were relevant in the analysis, a minimum threshold of five occurrences per keyword was set. Of the 2,147 keywords identified, only 123 met these criteria.

Figures 6, 7, and 8 show the visualization of co-occurrence based on network, overlay, and density, respectively.

In the 2016-2018 period, research focuses on the basic principles of Islamic banking, such as "Islamic banking" and "profit and loss sharing."

Over time, particularly between 2018-2020, there has been an emphasis on "financial crisis" and "risk assessment," highlighting the response to global economic challenges and the need for stronger risk management.

In the final phase, 2020-2022, terms such as "blockchain" and "fintech" have become more prominent, illustrating a strong push towards technological innovation in an effort to modernize and increase the operational efficiency of Islamic banking. This analysis illustrates the dynamic adaptation of Islamic banking to the evolving needs of the broader financial sector and the integration of new technologies.

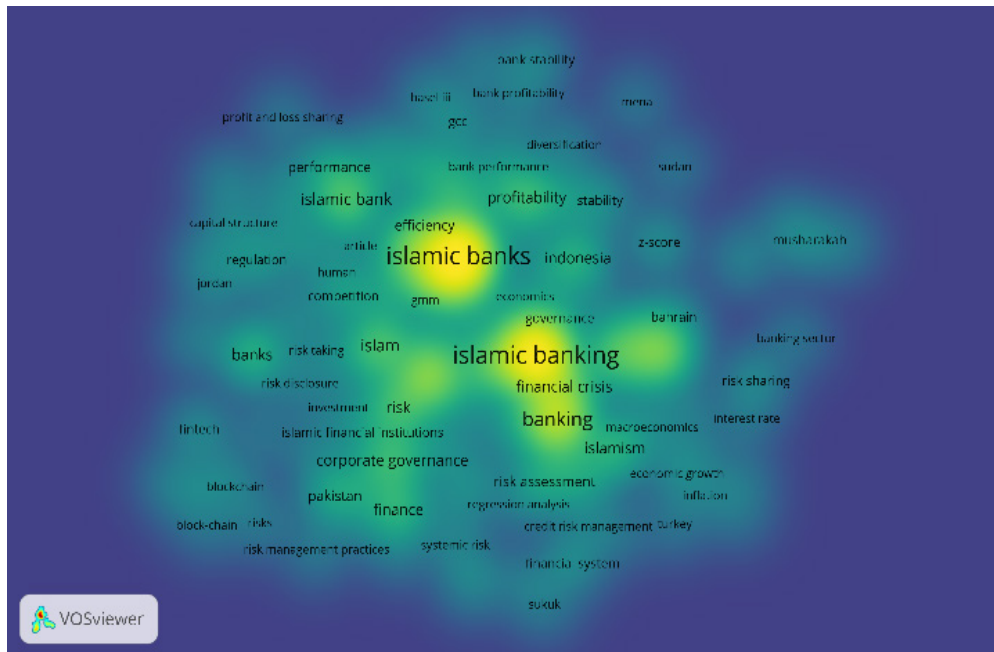


Figure 8. Density visualization

Figure 8 displays the distribution and concentration of keywords in research related to Islamic banking, with a color gradation from green to blue indicating the level of discussion density in the literature. Keywords such as "Islamic banks" and "Islamic banking," which are in the middle and have a dark blue color, indicate that they are the areas with the most intense discussion, confirming their position as the center of Islamic banking research. Other prominent areas include "financial crisis," "corporate governance," and "risk management practices," which also show high levels of density, reflecting the strong research focus on stability and governance in Islamic banking. The brighter spread of topics such as "blockchain" and "fintech" illustrates that this is the area that is still developing and has potential for further research. This analysis illustrates how Islamic banking is not only focused on operations and sharia compliance but also on innovation and adaptation to global financial challenges.

4. Conclusion

This research successfully maps the intellectual contours of risk management in Islamic banking, marking a notable expansion in scholarly attention and international collaborations. It highlights the sector's focus on stability, governance, and the innovative adoption of technologies like blockchain and fintech, which are vital for effective risk management and the sustainability of the sector. The integration of modern financial technologies not only enhances operational efficiencies but also sets new standards for compliance and transparency, potentially influencing global financial practices. However, the study's reliance on published data may not fully capture ongoing grassroots innovations and the rapid technological advances within the sector, suggesting the need for continuous research to keep abreast of developments. Future research should therefore explore the impact of technological integration on market competitiveness and Sharia compliance, assess the socio-economic impacts of Islamic banking, particularly in underserved regions, and develop more robust models for governance and transparency to support the growth of Islamic banking and its role in a more inclusive and ethical global financial system.

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